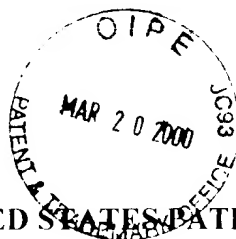


10365/06501



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Arad, et al.

Serial No.: 09/202,359

Filed: May 21, 1999

Group: 1654

Examiner: Lukton, D.

For: NOVEL ANTI-VIRAL COMPOUNDS

Assistant Commissioner

For Patents

Washington, D.C. 20231

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231 on: March 14, 2000.

Karen L. Knezek.

Registration No. 39,253

Name of Applicant, Assignee, or Registered Representative

Karen L. Knezek
Signature

March 14, 2000

Dear Sir:

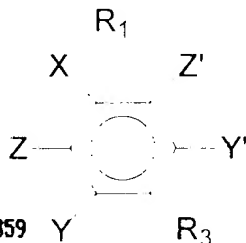
**PRELIMINARY AMENDMENT AND
RESPONSE TO RESTRICTION/ELECTION REQUIREMENT**

In response to the Office Action dated December 15, 1999, Applicant requests that the following amendment to the above-identified application be made.

IN THE CLAIMS

Please add the following claim.

13. The method for the treatment of a disease caused by a picornavirus species according to Claim 8, wherein said compound having the formula:



03/22/2000 CVORACHA 00000068 09202359 Y R3

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wherein X is $-\text{C}=\text{O}$;

R_1 is $-\text{CF}_3$;

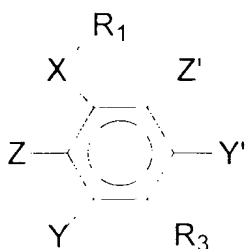
Z and Z' are hydroxyl;

R_3 is hydrogen;

Y and Y' are selected from the group consisting of $-\text{Cl}$, $-\text{I}$, $-\text{Br}$, $-\text{CF}_3$, $-\text{F}$, $-\text{CN}$, $-\text{COOH}$, $-\text{SO}_3\text{H}$, $-\text{SO}_2\text{NH}_2$ and $-\text{CONH}_2$; and

and Z' and R_1 cannot form a ring.--

--14. The method for the treatment of a disease caused by a picornavirus species according to Claim 8, wherein said compound having the formula:



wherein X is $-\text{C}=\text{O}$;

R_1 is $-\text{CF}_3$;

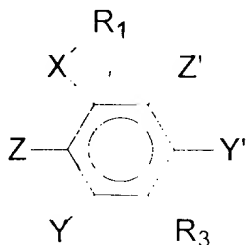
Z is hydroxyl;

Z' and R_3 are hydrogen;

Y and Y' are selected from the group consisting of $-\text{Cl}$, $-\text{I}$, $-\text{Br}$, $-\text{CF}_3$, $-\text{F}$, $-\text{CN}$, $-\text{COOH}$, $-\text{SO}_3\text{H}$, $-\text{SO}_2\text{NH}_2$ and $-\text{CONH}_2$; and

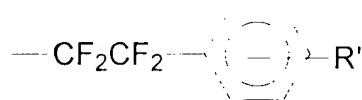
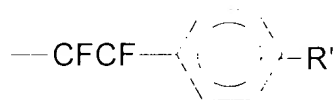
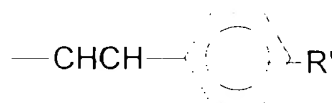
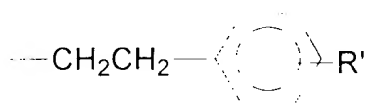
and Z' and R_1 cannot form a ring.--

--15. The method for the treatment of a disease caused by a picornavirus species according to Claim 8, wherein said compound having the formula:



wherein X is $-\text{C}=\text{O}$;

R_1 is H, $-\text{CH}_3$, $-\text{CF}_3$, $\text{CH}_3\text{--CH}_2\text{--CH}_2\text{--CH}_2\text{--CH}_2\text{--}$, $\text{CH}_3\text{--CH}_2\text{--}$, $\text{CH}_3\text{--CH}_2\text{--CH}_2\text{--}$, $\text{CF}_3\text{--CF}_2\text{--CF}_2\text{--CF}_2\text{--CF}_2\text{--}$, $-\text{NH--R}''$ or one of the following phenyl groups



wherein R' is $-\text{OH}$, $-\text{NH}_2$, $-\text{COOH}$, or $-\text{COCH}_3$ and R'' is $-\text{OH}$, NH_2 , $-\text{OCH}_3$ and $-\text{OCH}_2\text{CH}_3$;

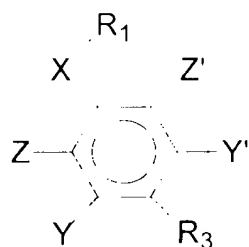
Z and Z' are hydroxyl;

R_3 is hydrogen;

Y and Y' are $-\text{CF}_3$; and

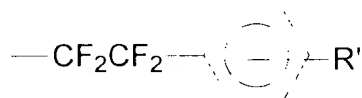
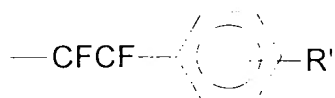
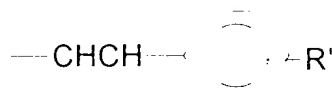
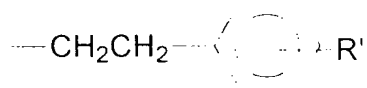
and Z' and R_1 cannot form a ring.--

--16. The method for the treatment of a disease caused by a picornavirus species according to Claim 8, wherein said compound having the formula:



wherein X is $-\text{C=O}$;

R_1 is H, $-\text{CH}_3$, $-\text{CF}_3$, $\text{CH}_3\text{--CH}_2\text{--CH}_2\text{--CH}_2\text{--CH}_2\text{--}$, $\text{CH}_3\text{--CH}_2\text{--}$, $\text{CH}_3\text{--CH}_2\text{--CH}_2\text{--}$, $\text{CF}_3\text{--CF}_2\text{--CF}_2\text{--CF}_2\text{--CF}_2\text{--}$, $-\text{NH--R}''$, or one of the following phenyl groups



wherein R' is $-\text{OH}$, $-\text{NH}_2$, $-\text{COOH}$, or $-\text{COCH}_3$ and R'' is $-\text{OH}$, $-\text{NH}_2$, $-\text{OCH}_3$ and $-\text{OCH}_2\text{CH}_3$;

Z is hydroxyl;
Z' and R₃ are hydrogen;
Y and Y' are -CF₃; and
and Z' and R₁ cannot form a ring.4-

REMARKS

Claims 1-12 are pending in the application. Claims 1-2 are subject to a restriction/election requirement. New Claims 13-16 have been added

Restriction/Election

Applicants note that the Examiner has imposed a requirement for election between classes of invention, i.e., compositions of matter, methods of use for antiviral treatment (Groups 75-148), and diagnostic methods. However, the Examiner superimposed a requirement for election of species, which Applicants traverse as explained below.

With respect to the first requirement, Applicants elect Claims 8 and 12 for prosecution, directed to a method of treatment. Applicants have added new Claims 13-16 which are all ultimately dependent on Claim 8 and are also, therefore, properly in the elected group. These claims depend on Claim 8 and, therefore, add no new complexity to the case. Applicants believe the Examiner has grouped the subject matter of Claims 8 and 12-16 into Group 108.

Although Applicant has noted that the Examiner has not fully set forth for election the possible species upon which the generic Claim 8 reads, Applicants provisionally elect the species set forth in Group 108, with traverse. The generic claims readable on the species in Group 108 are Claims 8 and 12.

The requirement for election between the species of Groups 75-148 is traversed because these claims are directed to a method of antiviral treatment using chemical compounds that have a commonality of core structure and a commonality of substituent functionality. In particular, Applicants submit that the search required for a method of using compositions with these core features will suffice for determining the patentability of each of the claims of a group directed to a method of treatment. Therefore, Applicant respectfully requests that the patentability of Claims 8 and 12 be fully examined.

Applicants have made their best effort to fully respond to this Office Action and believes that the provisional election of Group 108 is fully responsive. For any necessary clarification, Applicants request that the Examiner telephone the undersigned so that the response to the restriction/election requirement may be resolved.

Enclosed is a check for \$226.00 to be applied as \$36.00 for new claims fee and \$190.00 for the Extension of Time-Two Months filed concurrently herewith. If the check is somehow omitted, insufficient, or otherwise unacceptable, please deduct the necessary fees from our deposit account # 18-1260. Please deposit any overpayment to our deposit account # 18-1260.

Respectfully submitted,

By: Karen L. Knezek
Karen L. Knezek
Registration No. 39,253

KLK/ld

March 14, 2000

SIDLEY & AUSTIN

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